Sanctuary Integrated Monitoring Network (SIMoN)
Progress Report, Year One---2002

Staffing and Office Startup:

In the federal fiscal year, NOAA's National Marine Sanctuary program allocated funds to support hiring four SIMoN staff members. We were successful in recruiting four outstanding people; two SIMoN Scientists (Steve Lonhart and Jean de Marignac), a Data Analyst (Chad King), and an Outreach Specialist (Josh Pederson); all very talented individuals. That core team has made good progress with the program. Andrew DeVogelaere, MBNMS Research Coordinator, has provided the overall management direction to SIMoN during the first year. The SIMoN program offices have been established at 299 Foam Street, Suite D, in Monterey, CA. The main phone number is (831) 647-4201.

Protocols and Procedures:

During the first half of 2002, the SIMoN program established rigorous protocols for the SIMoN Science Committee and peer review processes. In particular, we've established procedures for determining the projects to be funded; the creation of Requests for Pre-Proposals; Requests for Full Proposals; the review and selection process for winning proposals; and the contractual terms for SIMoN work. Integral to the procedures is the involvement of independent, objective, experts in the particular fields to be studied. Those experts, or external reviewers, review the proposed work for scientific merit, feasibility of achieving the projects' objectives, and the broader impacts likely to be derived from the work. When combined with the MBNMS staff and Science Committee evaluations, we believe the outcomes of the contracts awarded will be far more meaningful than other, less rigorous initiatives. The processes associated with project identification and the awarding of contracts are described more thoroughly in another document entitled, SIMoN Science Committee.

Project Summaries:

We have initiated the following projects during the first year.

- Characterize and Model the Hydrology and Erosion of Elkhorn Slough
- Kelp Forest Resource Assessment throughout the MBNMS
- Characterize the Benthic and Planktonic Communities of Elkhorn Slough
- Examine the Ecological Effects of the Thermal Outfall in Moss Landing, CA
- Characterize Environmental Contaminants within the MBNMS and Elkhorn Slough that may affect the Southern Sea Otter Population

In addition, there were funds allocated and projects planned for the SIMoN program that were undertaken by other researchers, with alternative funding sources. Consequently, we were able to postpone implementation, pending the outcome of the other projects. Those projects were:

- Oceanographic Characteristics and Power Plant Effects of the Thermal Plume in Moss Landing, CA (Jeff Paduan, Naval Postgraduate School -- Oceanography Dept. and Tenera Corporation)
- Hyperspectral Imaging of Coastal Habitats of the MBNMS (a NOAA funded project in 2002 separate from SIMoN funding, we may continue the work as part of SIMoN in future years)
- Dynamics of Critical Prey Species was another project area that received funding from NOAA for the year 2002. We will extend the work done there into 2003 and beyond, with funds provided by The David and Lucile Packard Foundation. (See "Collaborations" below: CIMT and OCNMS)

In the case of the three projects listed above, we have been allowed input into the study process and methods and will have access to all of the data and findings.

Other projects worth noting are:

- The MBNMS has entered into an agreement with the Channel Islands National Marine Sanctuary to utilize their research vessel for seventy-five days over the next four years, with the possibility of an additional fifteen days each year. In return for the ship time, the MBNMS has contributed to the outfitting of the vessel with state-of-the-art scientific equipment.
- SIMoN staff members have been actively involved in removal efforts of Undaria pinnitifida, an invasive seaweed native to Japan, recently discovered in Monterey Harbor.

We will be initiating two additional projects in early 2003.

- Compilation of existing maps of Critical Habitat
- Mortality of Key Species, BeachCOMBERS program

Additionally, we were fortunate that we did not need to utilize our Rapid Response Program funding for any specific emergencies last year. Those funds have also been rolled-over into 2003.

During 2003, the SIMoN Science Committee will be working on RFP's for the following initiatives:

- Monitoring Soft Bottom Benthos
- Monitoring Hard Bottom Benthos
- Dynamics of Critical Prey Species
- Oceanographic Surveys

Finally, we are in discussions about conducting an annual SIMoN Symposium beginning in 2004.

Collaborations:
There have been numerous collaborative initiatives within the SIMoN program, in addition to those referenced above. Among the noteworthy ones are:

- Center for Integrated Marine Technologies (CIMT)

  A new program led by UC Santa Cruz, in partnership with MBARI, NPS, MBNMS and MLML, is designed to combine emerging technological approaches to understand the processes underlying upwelling and coastal ecosystems, and help establish scientific basis for monitoring and management of species and resources. Substantial funding for this initiative is coming from NOAA. The CIMT program is working closely with SIMoN to aid in the integration of observation data and dissemination of the information to the community. Initially, the project will focus on the area from Davenport in the north, to Point Lobos in the south.

- National Marine Sanctuary Programs
  - The year 2002 began with award recognition of the SIMoN program at the National Marine Sanctuary Program level as an outstanding example of *Science in Action*. SIMoN will serve as a model for similar monitoring initiatives throughout the National Marine Sanctuary program, and elsewhere.
  - Andrew DeVogelaere and SIMoN Scientist, Steve Lonhart (as well as Pete Raimondi, Science Committee member), are participating on a planning team to extend the concepts of SIMoN to Sanctuaries nationwide. The working group has met on two occasions thus far.
  - SIMoN teamed with the Olympic Coast National Marine Sanctuary (OCNMS) to host a workshop on monitoring marine mammals and seabirds with representatives from the five west coast sanctuaries and many experts in the field. They reviewed existing monitoring efforts and discussed ways to facilitate site-collaborations and the development of region-wide studies. As a result of the workshop, a regional plan is being developed. SIMoN will publish the proceedings of the workshop in the Spring of 2003.
  - As part of the Joint Management Plan Review process for the three Northern California Marine Sanctuaries (e.g. MBNMS, Cordell Banks and Gulf of the Farallones), Andrew DeVogelaere and Steve Lonhart are working with others to develop an ecosystem monitoring network strategy to integrate information from the three sites.
- The SIMoN program received positive attention at the Western Society of Naturalists annual meeting in November. Andrew DeVogelaere has been named President of the Society for 2002-2003.
- The Nature Conservancy of California and the San Francisco Zoo have invited SIMoN representative, Steve Lonhart, to participate in a workshop on invasive species, with other government agencies, educational institutions and non-governmental organizations.

- In late 2002, Andrew DeVogelaere made a trip to South Korea at the invitation of NOAA's International Programs Branch to help provide visibility for SIMON and our future fundraising efforts. The purpose of the trip was to participate in two workshops with the Korean Ministry of Marine Affairs and Fisheries, one on Integrated Coastal Management, the other related to Marine Protected Area Management. Andrew's role in the U.S. delegation representing --- how the Sanctuary Programs in the U.S. integrate research into resource management, and to demonstrate SIMoN as a model for developing monitoring efforts to serve scientists, resource managers and the public --- received very good feedback.
- SIMoN is also working with the following organizations and programs: PISCO, Wind to Whales, SCOPE, CI-CORE (Center for Integrative Coastal Observation and Research) and BeachCOMBERS.

In conclusion, our operating model is conservative, to ensure that money spent -- is well spent. As such, we have placed a very high priority on rigorous science and very specific deliverables being integral to every project. We believe this will result in far better outcomes from our work. Thank you for your interest in our program.